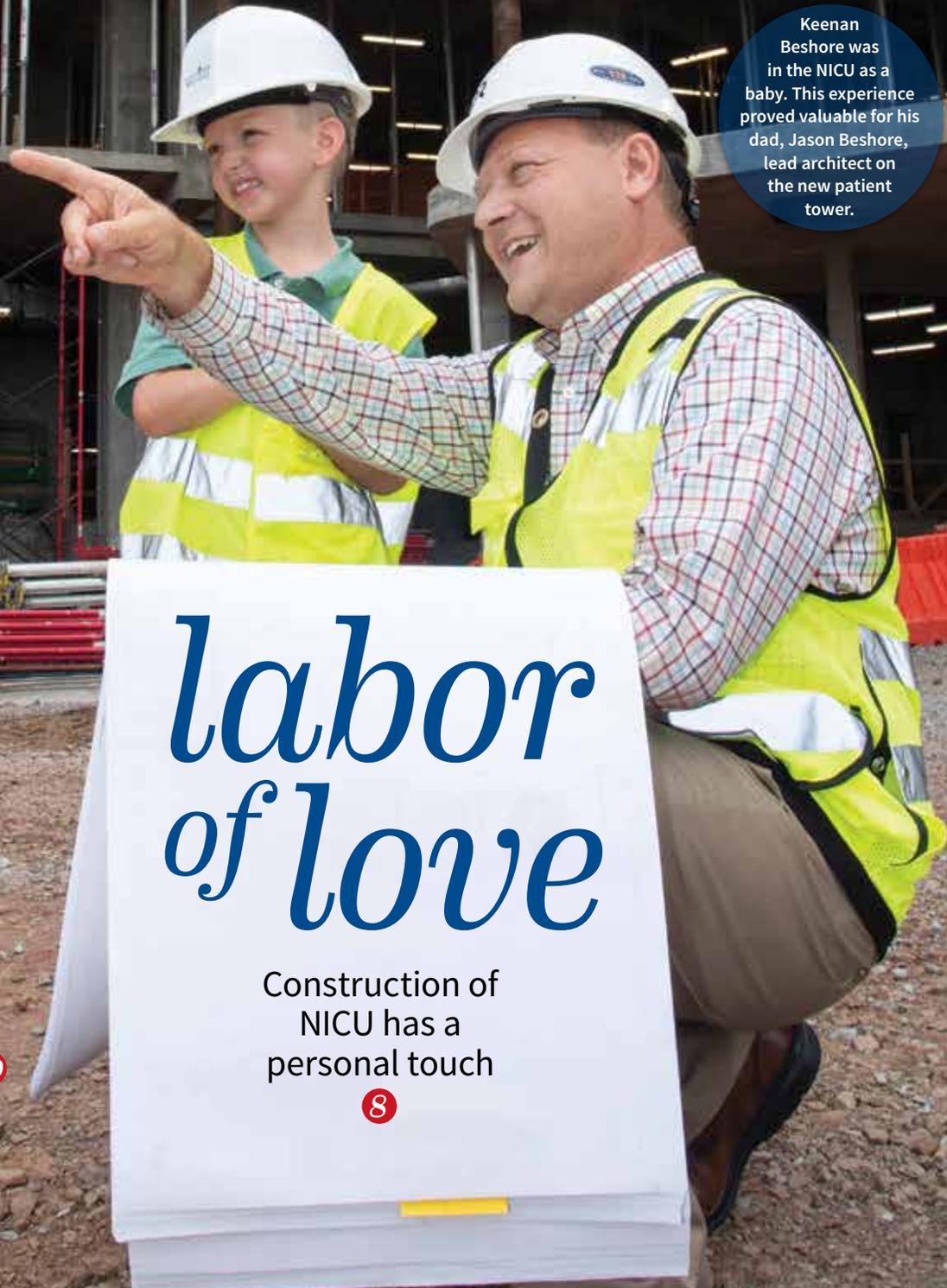


# INhealth

HEALTH AND WELLNESS MADE PERSONAL

Fall 2018

Keenan Beshore was in the NICU as a baby. This experience proved valuable for his dad, Jason Beshore, lead architect on the new patient tower.



## STICK TO IT

Physical therapy app helps patients stay compliant **12**

Remote heart monitoring device is a **LIFESAVER** **10**

## labor of love

Construction of NICU has a personal touch **8**



## Stories About You

This *INhealth* edition introduces design and content

changes, but one major component remains: our emphasis on community.

Learn about our new NICU being built in the future patient tower and the community members behind it (page 8). Also, celebrate the 80th anniversary of the Annual Ladies Board Rummage Sale (page 3). And applaud the LCPS students who named our new da Vinci® Xi surgical robot (page 6). Finally, we are lucky to have the FACT program, a key community resource (page 15).

We've been privileged to serve this county for more than a century, and we're honored to share these community stories with you.

**DEBORAH ADDO**  
Chief Executive Officer,  
Inova Loudoun Hospital

# We're Tops!

## Inova Loudoun Hospital wins recognition

Inova Loudoun Hospital (ILH) has received several awards this year, including another "A" from Leapfrog and two Beacon Awards.

ILH received an "A" rating from Leapfrog Hospital Safety Grade for spring 2018, making this the sixth consecutive year that the hospital has scored straight-A's. And ILH is one of 49 "Straight A" hospitals in the U.S. to be awarded



an "A" every grading cycle since 2012. The Leapfrog Group, which administers the Leapfrog Hospital Safety Grade, collects and provides data about errors, injuries, infections and other safety measures from approximately 2,500 hospitals nationwide to help consumers choose the safest hospital for their care.

"The score takes into consideration 27 data points that speak to our processes that keep our patients safe," says Deborah Addo, CEO, ILH. "That means we are focusing on the right thing: keeping the patient's safety at the center."

The American Association of Critical Care Nursing (AACN) also conferred a Beacon Award for Excellence on the hospital's Intensive Care Unit (gold-level) and Progressive Care Unit (silver-level) for the third consecutive term. The Beacon Award recognizes unit caregivers who improve patient outcomes and satisfaction, and align with the six Healthy Work Environment Standards of the AACN. The ICU at ILH is one of only 108 units nationwide and the only unit within the Inova Health System to earn a gold-level Beacon Award for Excellence.

"Winning these awards is a huge source of pride for these caregivers, and represents a great deal of focused effort," says Marissa Jamarik, DNP, RN, NEA-BC, Chief Nursing Officer, ILH. "For our patients, it is a symbol of our commitment to their care and an ongoing quest to provide excellent care through policy, process and practice."

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### Interested in learning more from *INhealth* magazine?

Visit [inovanewsroom.org](http://inovanewsroom.org) to read additional stories, as well as view videos and podcasts pertaining to hospital news, programs, treatments and cutting-edge research.

# A Genuine Treasure

## Annual Ladies Board Rummage Sale celebrates 80 years

For 79 years, the Annual Ladies Board Rummage Sale has been lauded as a treasure trove of great bargains and unique trinkets. However, those in the know say it's the women on the Ladies Board who are the rare finds. "These women are a force of nature," says Suzanne Quinn, Executive Director, ILH Foundation. "We couldn't ask for better ambassadors to champion the hospital and patients we are privileged to serve."

The Rummage Sale is one of the most hotly anticipated events in the mid-Atlantic region. "Families come every year for clothing, home goods, furnishings — things many community members would not be able to otherwise afford," says Deborah Addo, CEO, ILH.

It's also one of the most worthwhile happenings, with all the profits going to ILH and The Ladies Board Nursing Scholarship Fund. To date, the Ladies Board has awarded nearly 1,200 scholarships totaling \$1,770,000. In 2016, the Rummage Sale was deemed Visit Loudoun's Annual Tourism Event of the Year. It has also been named Best Annual Charity Event in Northern Virginia in 2015, 2016 and 2017 by *Virginia Living* magazine.

### A Rich History

Not surprisingly, the event has grown. Originally held in Leesburg's petite St. James Episcopal Church, today the Rummage Sale is organized by more than 500 volunteers and held at the more than 55,000-square-foot Morven Park Equestrian Center. An estimated 7,000 annual shoppers have room to browse.

### Some Things Never Change (Thankfully!)

And throughout the years and the changes, the Ladies Board's commitment to ILH has never wavered. "It's awe-inspiring," says Alexia Orr, past President of the Ladies Board of ILH. "We have women who have worked on the Rummage Sale for 30 or 40 years, and this year we'll recognize two 50-year veterans with our Golden Apron award."

Every day, Addo witnesses the Ladies Board's commitment. "From the very first board to today, these women have always been by our side. They helped to create the very bedrock of our hospital's mission." 🍷



*The Annual Ladies Board of Inova Loudoun Hospital Rummage Sale attracts an estimated 7,000 shoppers.*

### SHOP 'TIL YOU DROP

The Annual Ladies Board Rummage Sale will take place Saturday, Oct. 20, from 9 a.m. to 4 p.m., and Sunday, Oct. 21, from 9 a.m. to 3 p.m., at Morven Park Equestrian Center, 41580 Sunday Morning Lane, along Rt. 15, north of Leesburg. Please use the Tutt Lane entrance. Visit [ladiesboard.org/rummage-sale](http://ladiesboard.org/rummage-sale) for more information.

# Give It Another Shot

## Annual vaccine is the best way to prevent the flu

The flu virus is not fun. It causes high fever, headaches, body pains, extreme fatigue, sore throat, cough and other unpleasant symptoms. While some cases of flu are mild, others can be more serious and even life-threatening. The Centers for Disease Control and Prevention (CDC) estimates that 36,000 Americans die and more than 200,000 are hospitalized each year due to complications from the flu.



*One way to prevent the spread of the flu is to cover your nose and mouth when you cough or sneeze.*

An annual flu shot is your best protection. Why annually? There are different strains of flu every year, and the flu shot reduces the likelihood you will contract the flu virus. When more people get vaccinated, less flu infection can spread throughout the community.

The CDC recommends that adults and children ages 6 months and older receive an annual flu shot. Those with the most compromised immune systems — including children younger than 5; adults over age 65; pregnant women; and people with various medical conditions, like asthma, chronic lung disease and heart disease — are at a higher risk of developing complications from the flu.

In addition to receiving the flu vaccine, follow these tips to help prevent the spread of the flu:

- Wash your hands often with soap and water, or use an alcohol-based hand sanitizer.
- Don't touch your eyes, nose or mouth unless you have just washed your hands.
- Eat well, exercise, drink lots of water and get enough sleep.
- Try to avoid close contact with people who are sick.
- Cover your nose and mouth when you cough or sneeze. 

## FLU SHOT CLINICS

**Inova offers community flu shot clinics for adults and children 6 months and older. See the schedule and learn more about fighting the flu at [inova.org/flu](https://www.inova.org/flu).**

## Smart Sips

### Inova to eliminate most plastic drinking straws

For well over a decade, Inova has been a leading presence enacting sustainability efforts in the healthcare sector. When J. Stephen Jones, MD, took on the role of President and CEO last April, he considered the downstream impact of materials used throughout the system and advocated for Inova's sustainability efforts. Plastic use is one area of concern.

According to Seema Wadhwa, Inova's Assistant Vice President for Sustainability and Wellness, curtailing the use of plastic drinking straws is a new initiative that will be launched in the fall. "We can have a meaningful impact by cutting back on the use of this material," she says. "Inova

recognizes that plastic straws are not readily recyclable and can find their way to waterways, where they can cause harm to wildlife."

As the first health system on the East Coast to institute the change, Inova will eliminate plastic straws in a phased approach, first by pulling them from retail spaces, such as cafeterias and lounges. Patient care areas will then be reviewed to determine if plastic straw reduction or elimination is possible.

Of course, visitors and patients who have clinical or medical needs for straws will get them. "We have investigated plastic straw alternatives, including paper straws and bio-based straws," says Wadhwa, "and the replacements



*Inova's initiative to phase out the use of plastic straws is starting this fall.*

have been thoroughly vetted and meet our requirements for usability and cleanliness."

The plastic straw initiative is just one of the efforts in Inova's JustOne Campaign, through which the system is asking everyone to take one small action to foster a healthy environment. 

**Nov. 15 is America Recycles Day** and will mark the kickoff of Inova's straw reduction initiative. Learn how you and members of your community can participate. Visit [inova.org/JustOne2018](https://www.inova.org/JustOne2018).

## The Greater Good

### Giving to Inova Blood Donor Services helps save lives

Medical emergencies happen every day, and one critical need is blood. Inova Blood Donor Services provides blood to approximately 20 hospitals in the Northern Virginia and Washington, DC, metropolitan area, including Inova's five hospitals.

"Our goal is to collect 200 units [of blood] per day to support the hospitals we serve," explains Nicholas Lilly, Compliance and Regulatory Affairs Manager at Inova Blood Donor Services. "Each organization has a different use level and emergencies happen at all times; sometimes those 200 units could be used within minutes."

Because of this need, Inova Blood Donor Services collects blood on a daily basis, seven days a week, 363 days a year (except on Thanksgiving and New Year's Day, unless there is a special blood drive). Giving blood provides a critical resource for the community while also saving lives.

Note: If you're considering giving blood, visit [inovablood.org](http://inovablood.org) for more information about eligibility. You may be eligible and not even realize it. Here are some common misconceptions people have about giving blood:

**They don't need my blood, there must be a substitute.**

False. When it is needed, there is no medical substitute for donated blood.

**I can't donate because I have diabetes.**

While true for people with type 1 diabetes, as long as diabetes is controlled, people with type 2 diabetes can donate blood.

**I don't want to risk getting a bloodborne disease.**

There is no danger of contracting a disease from donating blood.



*There is no medical substitute for blood, which is why new donors are in demand.*



*It's important to treat concussions as early as possible to prevent side effects later.*

Needles used are sterilized and single-use, meaning a new needle is used for every donation.

**Donating blood hurts.**

Most donors describe it as nothing more than a pinch.

**I've been turned away from donating before, so I shouldn't try again.**

Regulations can change and new tests come out that might change your eligibility. Call **1.866.256.6372** to find out if you're eligible. [M](#)

Inova Blood Donor services is always looking for new donors. For more information, visit [inovablood.org](http://inovablood.org) or call **1.866.256.6372**.

## What should young athletes know about concussion?

**Monika Stolze, DPT, ATP, NCS**, is a physical therapist and Program Manager at Inova Loudoun Outpatient Specialty Rehabilitation Center.

Concussions have become a hot topic — and for good reason. A concussion is a mild traumatic brain injury that, without proper management, can lead to irreversible damage or even death if a subsequent injury occurs. Recovery from each subsequent concussion can also take longer. Therefore, it's important for young athletes and their parents to take any head injury seriously and disregard the "shake it off" attitude that is common in sports.

Concussion symptoms can include headache, nausea or vomiting, dizziness, difficulty concentrating, tiredness, memory loss, and emotional sensitivity or anxiety. Symptoms may also not show up right away, developing within 24 to 72 hours post-injury.

If you think your athlete is suffering from a concussion, contact their physician or call Inova Loudoun Concussion Clinic. Seeking early medical attention can prevent serious side effects later. Treatment usually includes physical rest — avoiding physical activity — and mental rest. Proper hydration, nutrition and sleep also are necessary. It's important to watch your child closely during this time, as symptoms can worsen, signifying a more serious problem. [M](#)



To make an appointment with Inova Loudoun Concussion Clinic, call **703.858.6699**.



*Inova Loudoun Hospital and EDGE Academy staff members (L to R) Rebecca Valdesuso, RN, ILH, Senior Director, Perioperative Services; Stacey Metcalfe, Director, Government and Community Relations for the Western Region; William Wahlquist, Intuitive Surgical CSR; and Megan Jonkers, RN, ILH Robotic and Urology Surgical Service Line Coordinator, surround EDGE Academy student Sarah Jabra from Meadowland Elementary School, who named the robot.*

## The Name Game

### Students help name Inova Loudoun Hospital's latest robotic technology

With help from Loudoun County Public School's (LCPS) EDGE Academy students, Inova Loudoun Hospital (ILH) named its newest robot in the operating room: the da Vinci<sup>®</sup> Xi Surgical System. Along the way, ILH may have inspired a future robotic surgeon or two.

EDGE Academy is a new after-school program for 4<sup>th</sup> and 5<sup>th</sup> graders attending Meadowland Elementary, Sugarland Elementary and Forest Grove Elementary schools. "An EDGE goal is to engage students in STEM — science, technology, engineering and mathematics," explains Stacey Metcalfe, Director of Government and Community Relations for the Western Region. "Everyone agreed that robotic surgery was a perfect fit."

After meeting with ILH robotic surgeons Kate Khalifeh, MD, and Nathan Roberts, MD, and learning about the surgical

technology, students created "birth announcements" and corresponding video blogs outlining their research and logic behind their proposed names. Patients, visitors and employees voted on the names, and the winner was ... Dr. Surge Bot. More than 90 school officials, students,

parents, teachers and hospital employees gathered to hear the selection. "After the announcement, students had a chance to manipulate the robot and see how it works inside a patient," says Rebecca Valdesuso, RN, ILH Senior Director, Perioperative Services.

"It's an experience these students will never forget," notes Megan Jonkers, RN, ILH Robotic and Urology Surgical Service Line Coordinator. "This was a successful, powerful and meaningful project for everyone involved." 

### THE STATS

MORE THAN  
**3 MILLION**  
PATIENTS  
WORLDWIDE  
HAVE  
UNDERGONE  
DA VINCI<sup>®</sup>  
SURGERY.

### ROBOTIC WONDER

**Inova Loudoun Hospital offers the latest technology in minimally invasive surgery utilizing the da Vinci<sup>®</sup> Xi Surgical System. This robot features superior capabilities for varying cardiac, colorectal, gynecologic, thoracic and urologic procedures. Learn more at [inova.org/LoudounRobots](http://inova.org/LoudounRobots).**

## A Stanley Cup Moment

On Sunday, July 15, Mark Nemish, the Washington Capitals' strength and conditioning coach and longstanding Loudoun County resident, coordinated a special visit to Inova Loudoun Hospital with the Stanley Cup. It was a morning that many patients and employees will never forget and are forever grateful for his generosity. A heartfelt thank you, Mark, for allowing us to CAPITALize on this once in a lifetime opportunity. #ALLCAPS 



*(L) One-day-old Alex Gebert rests in the Stanley Cup. (R) Mark Nemish of the Washington Capitals, left, and Leighton Smith, Clinical Director, Surgical Services, Inova Loudoun Hospital, show off the trophy.*

# Just for *Women*

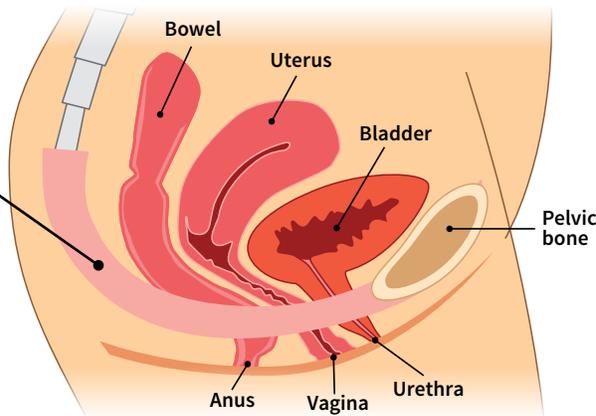
 **CONDITION:**

**Women's Pelvic Floor Disorder:** A group of conditions affecting the structure and function of the muscles and organs in the pelvis. The disorder relates to an inability to control the muscles of the pelvic floor.

## Pelvic Floor Muscles

The most common conditions fall into three categories:

1. *Urinary incontinence*
2. *Fecal incontinence*
3. *Pelvic organ prolapse*



 **SIGNS OR SYMPTOMS:**

Loss of control of urine or stool and protrusion of tissue from the vagina.

### Less common symptoms include:

- Constipation or straining pain with bowel movements
- Painful urination, or a frequent or urgent need to urinate
- Lower back pain
- Ongoing pain in pelvic region, genitals or rectum
- Spasms in pelvic muscles

### GET ANSWERS

Pelvic floor disorders can be tricky to pinpoint and there may be other causes for some symptoms. Specialists in the pelvic floor can help you determine the problem. To find out if you have this condition and learn what you can do about it, call **571.762.4161**.

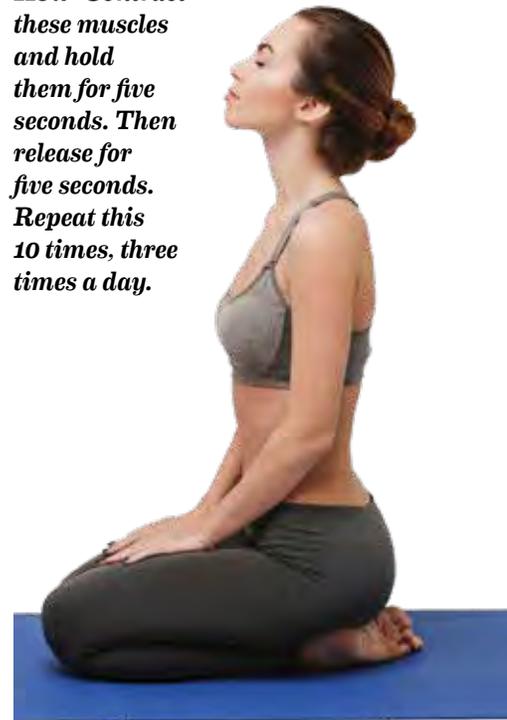
## Power the Pelvic Floor

*This exercise helps you have better control over your pelvic floor muscles. Talk to your doctor before performing it to see whether it could help you.*

### KEGELS

**What:** *This practice of contracting and relaxing the pelvic floor muscles helps to strengthen them.*

**How:** *Contract these muscles and hold them for five seconds. Then release for five seconds. Repeat this 10 times, three times a day.*



# Labor of Love

Construction of NICU has a personal touch

**K**eenan Beshore's premature birth in 2010 wasn't necessarily unexpected after his mother, Holly, experienced complications during her pregnancy. But his severe breathing problems — despite a robust weight of more than 7 pounds — were difficult for his parents to witness and harder still due to tight quarters in the NICU (neonatal intensive care unit) at Inova Loudoun Hospital (ILH).

"The staff was exceptional, but the space constraints made us feel like we were on top of the other parents there," says Keenan's dad, Jason Beshore.

In a delightfully ironic twist, Beshore's perspective as a former NICU parent is encouraging a bevy of improvements being incorporated into ILH's new NICU and 385,000-square-foot patient tower, due to open in spring 2020. As lead architect and health principal for HDR, the construction firm that was awarded



## NICU Not Just for Premies

With nearly 1 in 10 babies born in the United States arriving early — before 37 weeks of pregnancy — prematurity is the leading reason NICU care is needed, according to the National Institutes of Health.

But many health conditions in newborns can require this highly specialized care, even briefly. They include:

- Breathing problems
- Feeding difficulties
- Infection
- Low blood sugar
- Traumatic delivery
- Infection/inflammation of the placenta, which places baby at high risk for infection

the project, Beshore joins a large contingent of other residents of Loudoun County in a labor of love that will nearly triple the size of the current NICU while adding

a host of family-friendly features and amenities.

"Having lived the experience, I felt it was important to offer the hospital choices to provide family members the environment they need to be comfortable," says Beshore, an Ashburn resident, who is also the father of two other children. "It's exciting to have the opportunity to work on a NICU project that's in my backyard, in my community."



*Left: Jason Beshore with his family (Keenan is in front) on-site at the future neonatal intensive care unit and Keenan in the NICU (foreground). Above: renderings of the NICU convey isolettes designed for babies requiring constant observation.*

## Welcome Spaces

ILH has housed the county's only NICU for more than a decade. The expansion and enhancement of the hospital's Level IIIA NICU and highly regarded neonatology program is part of ILH's ongoing \$300 million Master Plan improvements.

The patient tower will feature a new labor and delivery unit with enhanced neonatal capabilities, all-private patient rooms and a new progressive care unit.

NICU capacity will double from 12 to 24 babies and include 12 private rooms, two twin rooms, and two pods with four isolettes apiece designed for the most fragile patients requiring constant observation, according to Gina Harrison, RN, MSN, Clinical Director of Family-Centered Care & NICU at ILH. In private rooms, "parents will be able to stay overnight with their children if they want to, and that's a really big deal," Harrison says.

Other expected amenities are subtler, but no less appreciable. They range from padded floors to keep noise down to glass doors that will transform from clear to opaque with a turn of a knob. Special lighting that aligns with the infants' circadian rhythm will dim lights automatically in the evening and darken at night, while universal controls for TV, lights and window blinds will come in especially handy when parents are holding sleeping babies.

Also, the new NICU will offer separate rooms for nutrition, meditation and consultations, along with

a laundry area and computer workstations to help family members feel at home.

## Growing Population Feeds Need

Another major feature of the new NICU will be a "family transition room," a hotel-like space where parents and infants can spend the night before discharge to test-run their comfort level before taking their baby home.

"Parents can take care of the baby just like they're home, but the nurses are right down the hall in case they have questions," says David Goodwin, MD, ILH's NICU Director. "Nobody plans to have a preterm baby, so we're trying to make the experience as stress-free as we can."

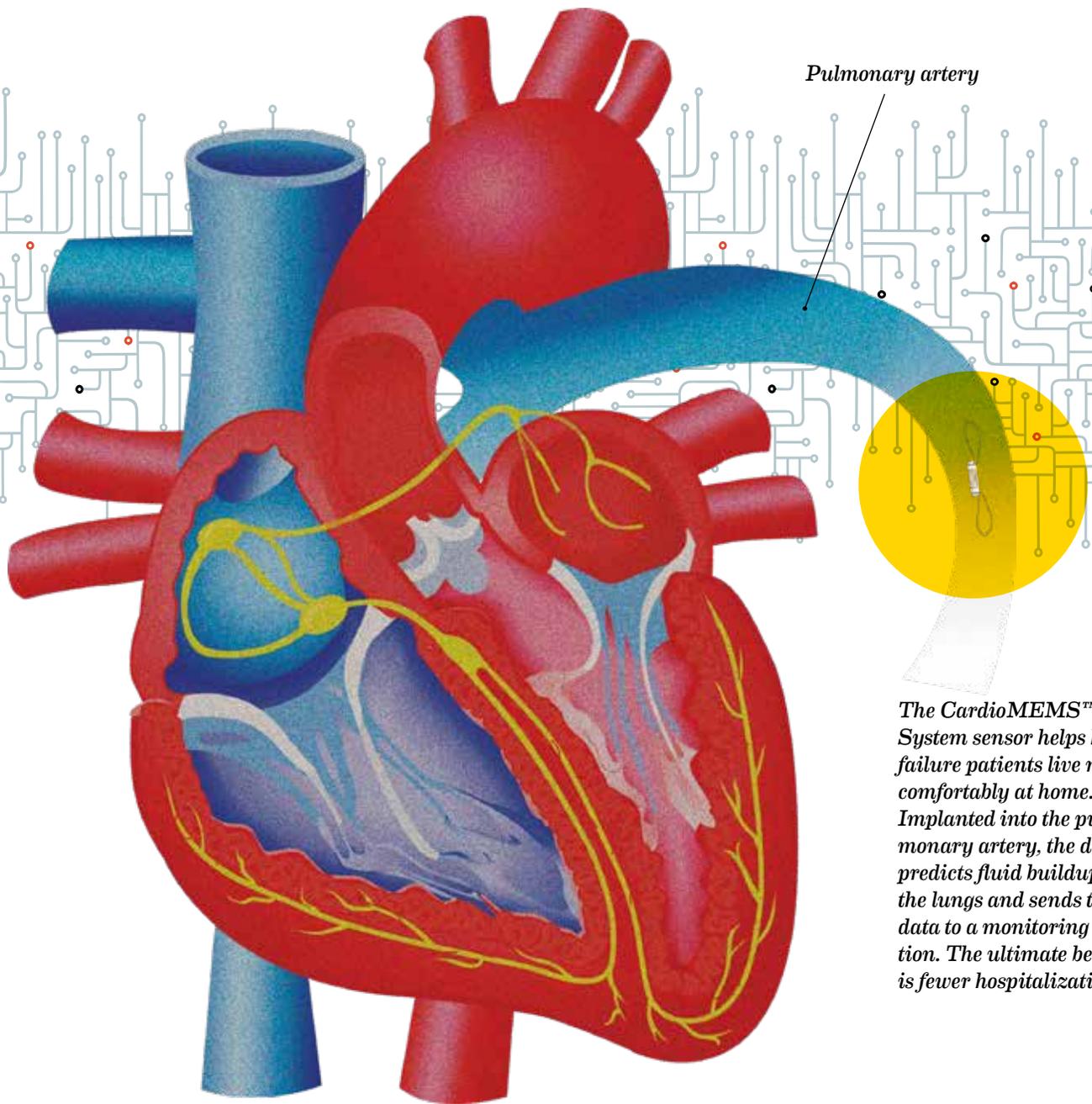
"One goal of the new patient tower is to keep Loudoun families in Loudoun County so they are close to home and loved ones. It's stressful to travel for medical services; we want to reduce stress wherever we can," Dr. Goodwin adds.

With some 70 percent of the Master Plan construction workers being residents of the ILH area, Harrison says, "I do think a personal touch is being seen in many aspects of this project."

"I love seeing this specialty NICU grow," she adds. "We have a very young population in Loudoun County and it's very fast-growing. Being able to expand our NICU services is right where we need it." 

## HELP US GROW!

To learn more about the NICU at Inova Loudoun Hospital (ILH) or to contribute to the future NICU through philanthropic opportunities, please contact the ILH Foundation at **703.858.8800** or visit [foundation.inova.org/ILH-NICU](http://foundation.inova.org/ILH-NICU).



*The CardioMEMS™ HF System sensor helps heart failure patients live more comfortably at home. Implanted into the pulmonary artery, the device predicts fluid buildup in the lungs and sends this data to a monitoring station. The ultimate benefit is fewer hospitalizations.*

# Home Is Where the *Heart* Is

Remote monitoring device provides proactive, personalized care for heart failure patients

**W**alter Williams, now 80, and his wife, Jeannette, rest a little easier these days, thanks to a unique, implantable, remote monitoring device that helps manage Walter's heart failure.

But it was a bumpy road for a while.

Walter was first diagnosed with heart failure in 1991, a condition whereby the heart muscle is damaged and cannot effectively pump blood throughout the body. This can lead to frequent and life-threatening fluid buildup in the lungs and surrounding body tissues as well as kidney failure.

The husband and wife team were vigilant about watching Walter's diet and fluid intake, but by 2016, Walter's condi-

tion had worsened. The Gaithersburg, MD, resident was nearing monthly visits to Inova Fairfax Medical Campus (IFMC) for emergency care, and with each hospitalization, his kidneys grew weaker, which made dialysis a looming possibility. "Every day was so stressful," Jeannette recalls. "We were always adjusting Walter's medication but never sure what, if anything, was working."

regarded implantable, battery-free sensor that essentially predicts fluid buildup in the lungs. Inova is believed to be the first hospital in the Washington, DC, area to implant this tiny, state-of-the-art monitoring sensor into a patient diagnosed with heart failure. One compelling reason to use the device? The chance to reduce hospital readmissions. "We know that hospitalization is a significant marker for heart failure severity. But more doctors, nurses and drugs weren't bending the curve on hospital readmissions. Neither were daily weigh-ins and strict diets with limited salt intake," notes Dr. Desai. "Then we found the CardioMEMS system. This was highly personalized, precision healthcare, which is always Inova's goal. So we were very early proponents."

Did Inova's hunch pan out? The evidence points to yes. Since Walter had the device implanted, his ER visits have dropped to only once in the past 14 months. "My quality of life is much better now — more normal," he says.

Adds Jeanette, "The stress level has been significantly reduced. We are so thankful to have Dr. Desai and his team."

Walter isn't the only patient benefiting from the CardioMEMS system. A 2014 clinical trial found that the device:

- Reduced hospital admissions for heart failure by 37 percent
- Reduced hospital re-admissions within 30 days by 78 percent
- Was free of complications for 98.6 percent of patients

### Staying Ahead of the Curve

For Walter, the path to better health began with Dr. Desai implanting the monitoring sensor — about the size of a paper clip — into the patient's pulmonary artery (the vessel that carries blood from

the heart to the lungs).

The minimally invasive, outpatient procedure took about 30 minutes. After a brief recovery period, the patient was discharged and at home.

Now, every day, Walter lies on a pillow and presses a button on a small home monitoring electronics unit. The system then measures the pressure inside Walter's artery, which forecasts fluid buildup in his lungs, and automatically sends this data to a monitoring station that is closely tracked by Amanda Millheim, RN, Heart Failure Nurse Specialist.

If Walter's pressure is higher than it should be, it's a sign that fluid might be backing up into his lungs. That's when Millheim alerts Dr. Desai, who can immediately adjust Walter's medications.

Because the CardioMEMS system senses increasing pressure up to two weeks before trauma strikes, it's a proactive system rather than a reactive system, giving doctors and nurses time to stay ahead of the curve and hopefully prevent hospitalization, or worse.

What sets Inova's system apart is the tight bond between Millheim and her Inova patients being remotely monitored. "Amanda is like a mother hen watching over our heart failure patients," Dr. Desai says. "They know she's tracking their data, preparing their weekly reports and ready to answer any question at any time."

"The CardioMEMS system is a tool that allows us to create a highly personalized approach to heart failure care," he adds. "It's a system that's brought some amazing results for so many of our patients." 



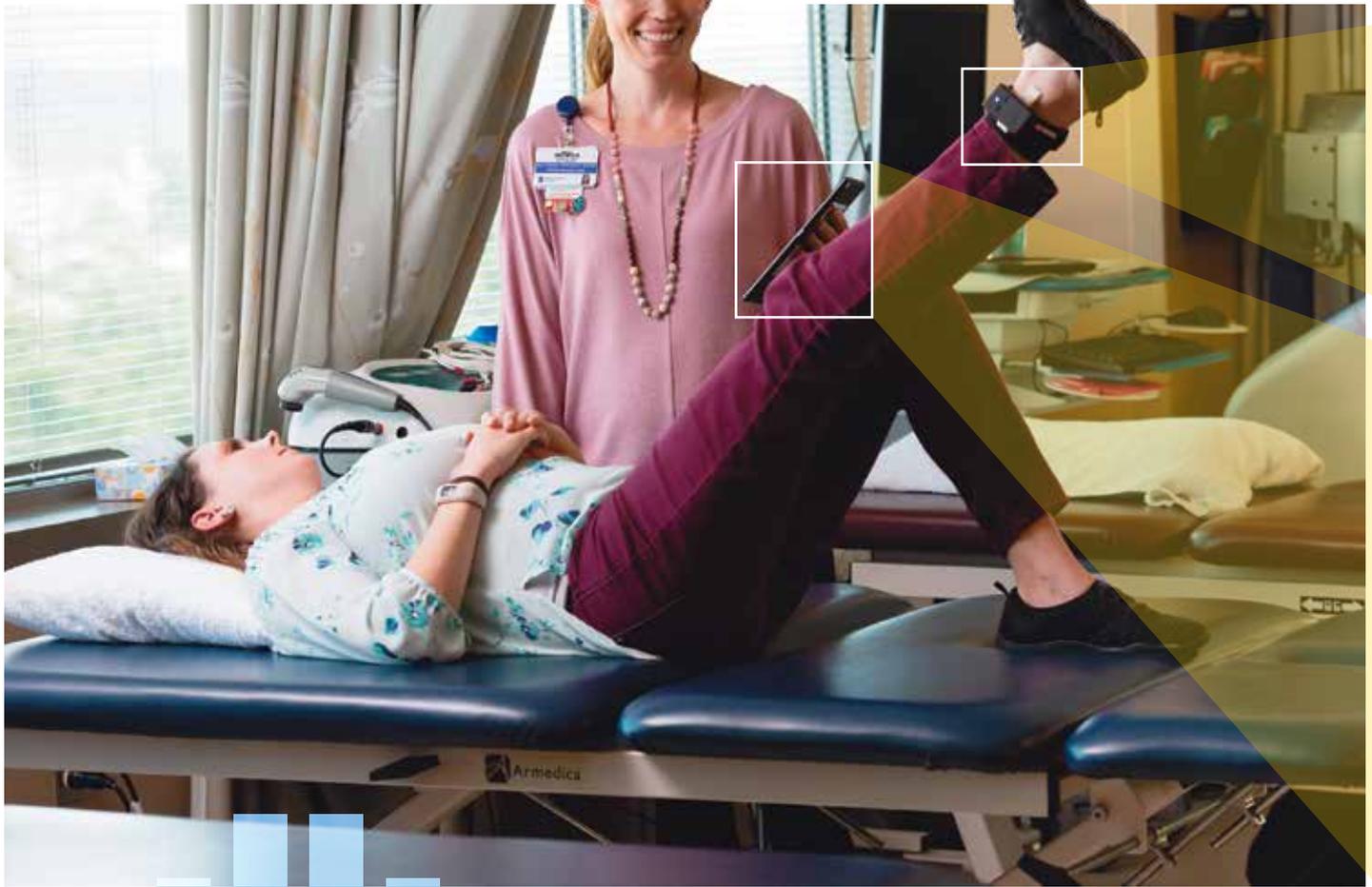
*The CardioMEMS™ HF System sensor is about the size of a large paper clip and transmits data on the pressure within the pulmonary artery to a remote sensing device (above right).*

### A New Approach

That's when Walter's doctor, Shashank Desai, MD, Medical Director of the Advanced Heart Failure and Transplant Program at IFMC, suggested the CardioMEMS™ HF System, a new and highly

### THE HEART OF IT

Learn more about the groundbreaking CardioMEMS HF System and other treatments for heart failure at [inovaheart.org/heart-failure/treatments](http://inovaheart.org/heart-failure/treatments).



Photos: Robert Rathe

# Driven by *Data*

Inova partners with tech company to improve physical therapy results

**I**magine you had knee surgery. Everything went well and you're back home. Of course, your physical therapist (PT) recommended a therapy treatment plan — which includes exercises at home as well as with your therapist at a physical therapy clinic. In an ideal world, you follow your PT's directions, and you're headed for a remarkable recovery.

“Following your PT's instructions isn't always easy,” emphasizes Mike Thomas, Co-Director of the Inova Personalized Health Accelerator (IPHA), a program looking to invest capital in companies with early-stage technologies that are of strategic interest to Inova.

Enter KinometriX. To work around noncompliance, Thomas and the IPHA team recently partnered with this Maryland-based company and developer of a platform to track patients' physical therapy

*Above, Monika Stolze, Program Manager for Adult Therapy Services at Inova Loudoun Hospital's Outpatient Specialty Rehabilitation Center, tests out the KinometriX sensor on athletic trainer Janna Ward.*



*The KinometriX sensor can be worn on the ankle, wrist or arm, and tracks relevant rehabilitation factors, including range of motion, torque and repetitions. Patient activity is tracked via a mobile app (below) and is reported back to the caregiver team.*

progress and hopefully keep them engaged in their rehabilitation process. “Life gets busy, and physical therapy sessions get canceled. Some patients stop exercising because progress is often so gradual they don’t even realize they’re improving,” Thomas says.

### Accelerating the Goal

How does KinometriX work? Simply put, the patient finds a convenient time to put a small sensor over their injured joint — similar to positioning a wireless-enabled wearable activity tracker. Next the patient performs their exercise treatment plan,

such as kicking the leg up and down as fast as possible 10 times. The sensors, powered by artificial intelligence algorithms, collect motion data, which are uploaded to KinometriX’s cloud platform. There the data are analyzed for key metrics, including range of motion, speed of motion, fatigue and neuromuscular control.

Tapping into the KinometriX app, patients as well as their physical therapist and healthcare provider can review real-time data and measure improvements. Specific to the patient, this data can help predict treatment progress or point to a need for plan adjustments.

### A Promising Test Drive

Currently, Inova Loudoun Hospital is working with KinometriX. “Everything is in the early research and development phase,” Thomas says. “We’re refining the system’s existing algorithms and collecting clinician



## A Strong Union

KinometriX is an ideal example of an Inova Personalized Health Accelerator (IPHA) candidate, with the KinometriX team working with IPHA as well as Inova leaders to further develop and refine this innovative technology. If successful, this new technology

should provide better outcomes to Inova patients.

By offering access to Inova, IPHA plans to attract leading healthcare entrepreneurs, investors and researchers, Mike Thomas, Director of IPHA, says. These unions will ultimately bring unique expertise to Inova’s ever-progressing quest to better evaluate, develop and implement technology solutions that add value to Inova’s operations, improve outcomes and keep Inova at the vanguard of healthcare innovation.

feedback, which will help us perfect the platform. We’re already excited about the potential here.”

As Program Manager for Adult Therapy Services at Inova Loudoun Hospital’s Outpatient Specialty Rehabilitation Center, Monika Stolze, DPT, sees positive patient reactions to the KinometriX platform. “Putting user-friendly data at our patient’s fingertips keeps them involved in their rehabilitation. They’re part of the process — instead of being passive recipients of care. We think this will increase compliance.”

With patients able to collect data at home, when it’s convenient, Thomas suspects that this, too, may inspire maximum patient follow-through with a clinician therapy plan. “It’s our hope that having access to objective, real-time data — without needing to schedule quite so many clinic appointments — will encourage patients to stick to their rehabilitation therapy,” he says.

Also, the KinometriX platform, based on artificial intelligence that presents immediate data, represents the next generation in healthcare. “We currently have the means to assess everything KinometriX measures, but it has to be done in the clinic,” Stolze says. “This platform represents the future, and what clinicians as well as patients expect.”

### AN EYE ON AI

Learn more about the Inova Personalized Health Accelerator at [inovapha.org](http://inovapha.org).

# You're Approved

New software system streamlines authorizations to speed patient care

In the hopes of having better medical outcomes, more physicians and patients are asking for genetic and molecular diagnostic tests, creating more personalized treatments for patients.

Unfortunately, it is also time-consuming and expensive. Many times, undergoing genetic testing requires prior authorization by a doctor, which is followed by a complicated matrix of requirements that involve multiple stakeholders. Then, even after a prior authorization has been obtained, a lab will still need to verify the authorization, which can create a back-and-forth dialogue that can delay the process and even negate reimbursement if an insurer refuses to pay.

Which is why the Inova Personalized Health Accelerator (IPHA) is rolling out CoverMyTest, a software system designed to streamline and automate the workflow for prior authorizations. The infrastructure will help expedite patient care and allow labs and physicians to efficiently conduct patient eligibility checks, deliver electronic prior authorizations and collect insurance verification.

In 2019, Lesley Anderson, Director of Business Development, Inova Genomics Laboratory, anticipates that more than 3,000 of about 10,000 patients receiving genetic testing at Inova will need preauthorization.

"Physicians care about this because they want to know when the lab results are in, and the lab cares about where we are in that process of getting everything authorized," says Rick Gordon, Co-Director of IPHA. "This gives everybody visibility, making sure patients can get the tests they need." 

## CARE TAILORED TO YOU

Learn more about genomics and the Inova Center for Personalized Health at [inova.org/icph](http://inova.org/icph).

## **IN** my own words

Inova's experts speak out

# *The Bar Is Set*

Loring Flint, MD, Chief Physician Executive and High Reliability Officer, seeks consistency in healthcare

As the Chief Physician Executive and High Reliability Officer, Loring Flint, MD, is tasked with setting top priorities and ensuring quality, safety and effective results create a positive patient experience. In 2018, his role shifted from Chief Medical Officer to Chief Physician Executive to help coordinate physician partnerships, drive the strategic direction of Inova and maintain operating responsibility for several departments.



Photo: Robert Rathe

“[ZERO HARM] STARTS WITH THE SIMPLEST THING: 100 PERCENT HAND WASHING.”

### What are you hoping to accomplish in your new role?

We are trying to create excellence in everything we do and have a zero-harm goal for all of our organizations. The latter is an aspirational goal because we are dealing with humans; the biology is different in each person, and how each handles medications, procedures and fighting disease is different. A key focus is eliminating and preventing any infections obtained in a hospital.

### How are you trying to make this goal a reality?

It starts with the simplest thing: 100 percent hand washing — washing hands when going in and out of a room, and after touching a patient or various pieces of equipment in the room. It’s making sure you have sterile barriers when you’re inserting a catheter or IV and cleaning the line every day and removing the catheters as soon as they are no longer needed. We are standardizing our processes to be sure we are doing everything possible to not inadvertently transmit an infection to a patient.

### What success have you seen so far?

Over the past two years, using a commonly accepted measure of harm, we have decreased harm by over 57 percent. We have a number of units, such as our pediatric oncology team, that have gone over 12 months without having an infection with a central line. Several units have had three to six months with no harm.

### What question should physicians be asking patients more readily?

Ask a patient at the end of the visit, “Is there anything else I can answer or do for you today?” It opens the door for the quiet issue that is lurking in the background. If a patient is coming in for a blood pressure check, you might learn they are really concerned about depression. It’s important to make sure you’re really being open and partnering with your patients. 

Visit [inova.org/physicians](http://inova.org/physicians) to find the right doctor for you.



# Crucial Help

Philanthropy drives pivotal program at Inova

When a person has been a victim of physical and sexual assault, they are at their most vulnerable. They may struggle with being able to inform others or share details of their story, much less offer forensic evidence of the crime.

Thankfully, the Inova Ewing Forensic Assessment and Consultation Team (FACT) program — the only one of its kind in Northern Virginia — provides compassionate, skilled care that addresses victims’ emotional trauma from abuse, and also supports the collection of DNA evidence and documents injuries to assist the criminal justice process.

As crucial as this program is, it would not exist in its current form without a foundation of philanthropy, says FACT Director Mary Hale. In 2002, Betty and the late Charles Ewing and their family established dedicated funding for FACT services at Inova Fairfax Medical Campus, and in 2012 they supported the expansion of the department. The commitment of the Ewing family has allowed FACT to become one of the most comprehensive forensic programs in Northern Virginia. Growing from a staff of only on-call nurses, FACT now has six full-time and four part-time forensic nurses as well as a dedicated on-call staff. This ensures no victim has to wait for care.

In another generous gesture, the Ewing family also has expanded services to Inova Loudoun Hospital to improve access to care. Accessibility to services means more victims will reach out for help, Hale says. “To reduce the number and extent of these crimes, we need this program, as well as community education and resources,” she says. “This program makes a huge difference in the community, but we can’t do it alone. Through generous philanthropy and the incredible FACT team, we’re making an important impact every day for the most vulnerable among us.” 

## EMPOWERING VICTIMS

Learn more about the FACT program at Inova Fairfax Medical Campus and Inova Loudoun Hospital at [inova.org/FACT](http://inova.org/FACT).

Inova is a not-for-profit healthcare system located in Northern Virginia in the Washington, DC, metropolitan area, serving over 2 million people with over 1,700 licensed beds. It consists of five hospitals including the area's only Level 1 Trauma Center and Level 4 Neonatal Intensive Care Unit. Inova encompasses many health services including the internationally recognized Inova Heart and Vascular Institute (IHVI), Inova Translational Medicine Institute (ITMI), Inova Neuroscience Institute, Inova Schar Cancer Institute and Inova Children's Hospital. Inova's mission is to improve the health of the diverse community it serves through excellence in patient care, education and research. More information about Inova is at [inova.org](http://inova.org).

If you do not wish to receive future mailings from Inova, please contact us at 703.972.2044 or [inova.org/unsubscribe](http://inova.org/unsubscribe).



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# ask THE EXPERT



## Knees, Hips, Shoulders and Other Joints

### Treatment Options for Hip and Knee Arthritis

**Michael Anvari, MD**  
Wednesday, Oct. 24, 6 p.m.  
Inova Fairfax Medical Campus  
\*Physicians Conference Center  
3300 Gallows Road  
Falls Church, VA  
\*or join via webinar

**Nigel Azer, MD**  
Wednesday, Nov. 28, 6 p.m.  
Inova Alexandria Hospital  
Boardroom  
4320 Seminary Road  
Alexandria, VA

### Treatment Options for Shoulder Pain and Arthritis

**Adam Lorenzetti, MD**  
Wednesday, Oct. 24, 6 p.m.  
Inova Loudoun Hospital  
44055 Riverside Parkway  
Suite 110  
Leesburg, VA

### Osteoarthritis and the Latest Advances in Joint Replacement

**Michael Anvari, MD**  
Wednesday, Nov. 14, 6 p.m.  
Inova Fairfax Medical Campus  
\*Physicians Conference Center  
3300 Gallows Road  
Falls Church, VA  
\*or join via webinar

## Heart and Vascular

### Preventing Heart Disease

**Stuart Sheifer, MD, FACC**  
Monday, Nov. 5, 6 p.m.  
Inova Fair Oaks Medical Campus  
Building 3580, Auditorium  
3580 Joseph Siewick Drive  
Fairfax, VA

### Minimally Invasive Techniques to Treat Valvular Heart Disease

**Matthew Sherwood, MD**  
Wednesday, Nov. 7, 6 p.m.  
Inova Fairfax Medical Campus  
\*Physicians Conference Center  
3300 Gallows Road  
Falls Church, VA  
\*or join via webinar

### Atrial Fibrillation

**Haroon Rashid, MD**  
Wednesday, Dec. 12, 6 p.m.  
Inova Fairfax Medical Campus  
\*Physicians Conference Center  
3300 Gallows Road  
Falls Church, VA  
\*or join via webinar

## Spine

### Advanced Treatment for Neck Pain

**Corey Wallach, MD**  
Tuesday, Nov. 27, 6 p.m.  
Inova Alexandria Hospital  
Boardroom  
4320 Seminary Road  
Alexandria, VA

## Special Events

### 80th Annual Ladies Board Rummage Sale

**Saturday and Sunday, Oct. 20 and 21**  
Morven Park Equestrian Center  
41580 Sunday Morning Lane  
Leesburg, VA

Learn more at [ladiesboard.org/rummage-sale](http://ladiesboard.org/rummage-sale).

### Brain Injury Services: The Journey Conference

**Thursday, Nov. 1**  
Inova Fairfax Medical Campus  
Physicians Conference Center  
3300 Gallows Road  
Falls Church, VA

Register at [inova.org/thejourneyconference](http://inova.org/thejourneyconference).

### Inova Medical Spa Open House

Presented by Inova Medical Spa & Life With Cancer  
**Tuesday, Nov. 13, 6 p.m.**  
Inova Medical Spa  
21785 Filigree Court  
Ashburn, VA

### 2nd Annual Holiday Open House

**Wednesday, Dec. 5, 6 p.m.**  
Inova HealthPlex Ashburn  
22505 Landmark Court  
Ashburn, VA

## FIND A PHYSICIAN

Looking for a doctor? Visit [inova.org/physicians](http://inova.org/physicians) or call our 24/7, bilingual physician-referral service at **1.855.My.Inova (1.855.694.6682)** to find one close to home or work.

## SUBSCRIBE NOW!

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